



Material No.: 9152-80 Batch No.: 0000066750 Manufactured Date: 2013/12/30

Retest Date: 2018/12/29

Certificate of Analysis

| Test | Specification | Result |
|---|---------------|----------|
| Ultraviolet Absorbance (1.00-cm cell vs. water) - 400-254 nm | <= 0.0050 | < 0.0050 |
| Ultraviolet Absorbance (1.00-cm cell vs. water) - 220 nm | <= 0.0100 | 0.0100 |
| Ultraviolet Absorbance (1.00-cm cell vs. water) – 200 nm | <= 0.0500 | 0.0300 |
| Ultraviolet Absorbance (1.00-cm cell vs. water) - UV Cut-off, nm | <= 190 | < 190 |
| Gradient Elution Test (a.u.) – 254 nm | <= 0.0050 | < 0.0010 |
| Gradient Elution Test (a.u.) – 210 nm | <= 0.0050 | < 0.0010 |
| Density (g/mL) at 25°C | 0.775 - 0.780 | 0.778 |
| Fluorescence Trace Impurities, measured as Quinine Base – at 450 nm Emission | <= 0.30 ppb | < 0.10 |
| Fluorescence Trace Impurities, measured as Quinine Base – at Emission Maximum for Impurities | <= 1.0 ppb | 0.2 |
| Assay (CH3CN) (by GC) | >= 99.9 % | 100.0 |
| Appearance | Passes Test | PT |
| Color (APHA) | <= 10 | 5 |
| Residue after Evaporation | <= 1.0000 ppm | 0.9000 |
| Titrable Acid (µeq/g) | <= 0.8 | 0.1 |
| Titrable Base (µeq/g) | <= 0.600 | < 0.100 |
| Water (by KF, coulometric) | <= 100 ppm | 68 |
| Carbonyl Compounds (as Acetone) | <= 25.0 ppb | < 25.0 |

For Laboratory, Research or Manufacturing Use

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Country of Origin: CN



Phillipsburg, NJ 9001:2008, 14001:2004
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008, 17025:2005
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008, 17025:2005
Panoli, India 9001:2008

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